Declassified in Part - Sanitized Copy Approved for Release
2012/07/11 : CIA-RDP80S01540R006400080007-2

50X1-HUM

INTELLFAX 7.

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

50X1-HUM

SECRET/NOFORN

~~SECURITY INFORMATION~~

COUNTRY	Poland	REPORT	
SUBJECT	The Polish State Railroads	DATE DISTR.	16 February 1955
		NO. OF PAGES	1
DATE OF INFO.		REQUIREMENT NO.	RD
PLACE ACQUIRED		REFERENCES	

50X1-HUM

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.

50X1-HUM

SECRET/NOFORN

STATE		ARMY		NAVY		AIR		FBI		AEC		OCD	x			

(Note: Washington Distribution Indicated By "X"; Field Distribution By "#".) Form No. 51-61, January 1953

POLAND

Economic

Polish Railways.

1. The Polish State Railway carries 87% of all passenger and goods traffic in Poland. The heavy damage suffered during the war; destruction of 33% of all rails, 48% of the bridges and 36.6% of all types of railway buildings and stations was made good during the period 1945-1949. By 1949 goods and passenger traffic was twice as great as in 1946, and compared with 1938 there was 80% more goods and 100% more passenger traffic. Figures are as follows:-

	Goods traffic	Passenger traffic
1938	80 million tons	240 million persons
1946	70 " "	240 " "
1949	140 " "	480 " "

2. By 1955 the State Railway hopes to carry 245 million tons of goods and 910 million passengers. To achieve these figures loading facilities will have to be more fully used, turn-round of trains will have to be faster and trains will have to be speeded up. It is proposed:-

a). To build 730 kms of new lines and by 1953 500 kms of these were finished.

b). That the main railway centres Warsaw, Danzig, Gdynia, Stettin and Crakow, and the Upper Silesian net should be modernized. As well as this marshalling yards, repair shops and railway works would be extended and improved.

c). That electrification of existing steam lines ~~should~~ be carried out. Before the war only 3 sectors of a total length of 25 kms were electrified. Since 1946 another 440 kms have been electrified. At the present moment the 318-km stretch Warsaw-Katowitz is being electrified and will be completed by the end of 1955.

/3. Three new

3. Three new types of locomotives are being developed and built:

a) A goods train locomotive type ER.

b) A locomotive OL-49 for light passenger trains.

c) A heavy express locomotive Ty-51 to develop a speed of 90 km per hour.

Further types of electric locomotives have been ordered from VEB Lokomotivbau-Elekrotechnischen Werke "Hans Beimler" HENNINGSDORF (East Germany). For normal traffic a direct current locomotive for 3,000 volts has been ordered (see Appendix I). This has an axle sequence of Bo-Bo or Co-Co and can be used for goods or passenger traffic. Twenty-five Bo-Bo and twenty Co-Co locomotives have been ordered. The first Bo-Bo locomotives will be delivered in the third quarter of 1954. The development of the Co-Co locomotive is almost completed and the first deliveries will be in the second quarter of 1955. The data of both locomotives are as follows:-

	Bo-Bo	Co-Co
Service weight	84 tons	120 tons
Guage	1,435 mm	1,435 mm
Length over buffers	16,320 mm	18,700 mm
Distance between pivots (Drehzapfernabstand)	7,800 mm	10,200 mm
Distance between bogie wheels (Drehgestellradstand)	3,500 mm	4,900 mm
Total distance between front and rear wheels	11,300 mm	13,400 mm
Greatest height	4,480 mm	4,480 mm
Greatest width	3,050 mm	3,050 mm
Driving wheel diameter	1,350 mm	1,350 mm
Ratio	1:3.85	1:3.85
Tension of driving wire	3,000 v.	3,000 v.
Output per hour	2120 KW at 45.5 km/per hour	3180 KW at 45.5 km/per hour
Pulling power per hour	17 tons	25 tons
Pulling power at start	25 tons	36 tons
Planned maximum speed	110 km per hour	110 km per hour
Allowable maximum speed	120 km per hour	120 km per hour

4. The Henningsdorf works and the VEB Waggenbau GOERLITZ (East Germany) also received orders from the Polish State Railway for the delivery over a number of years of electric-powered coach trains and special diesel rail-cars. These consist of three-carriage suburban trains drawing current from overhead and twin-axled diesel car (Revisions - Dieseltrieb-wagen) also drawing current from overhead. The diesel-car (see Appendix 2)

has a maximum speed of 70 km per hour, and for experimental purposes a speed of 7 km per hour. The vehicle has two driving places, a brigade-leaders room, a work-room with observations-dome, a work stage and a scissor trolley. Main date of the car are:-

Length over buffers	13,100 mm
Length of carriage body	11,800 mm
Length of chassis	11,800 mm
Distance between axles	7,000 mm
Maximum width	2,948 mm
Height of car	3,753.5 mm
Diameter of turning circle of axle	940 mm
Weight	Approx. 22,000 kg.

5. The powered coach trains will be used in the suburbs of Warsaw. They consist of a powered wagon (see Appendix 3) and two steering cars. The cars each have two twin axled driving or running chassis which are welded and have roller bearings. The chassis frames over the axle boxes are sprung by a leaf spring system whilst the cradle has a screw spring system with connected shock-absorbers. The steering cars have two third-class passenger compartments, a room for heavily laden passengers or for luggage, lavatory, two entrance halls and a compartment for driver and companion. The powered car has two second-class and one third-class rooms, a lavatory and two entranoe halls. The main data of the carriages are:-

	Powered car	Steering car
Length of carriage body	20,180 mm	20,350 mm
Distance between pivots	14,730 mm	14,800 mm
Overhang	2,725 mm	2,725 mm
		2,825 mm
Distance between axles in chassis	2,700 mm	2,700 mm
Diameter of wheels	1,000 mm	940 mm
Overall width of car	2,950 mm	2,950 mm
Height of car	3,800 mm	3,800 mm
Distance between topof rail and top of floorboards	1,150 mm	1,150 mm
Seats 2nd class	60	-
Seats 3rd class.	24	72
Total weight of train	130 tons	

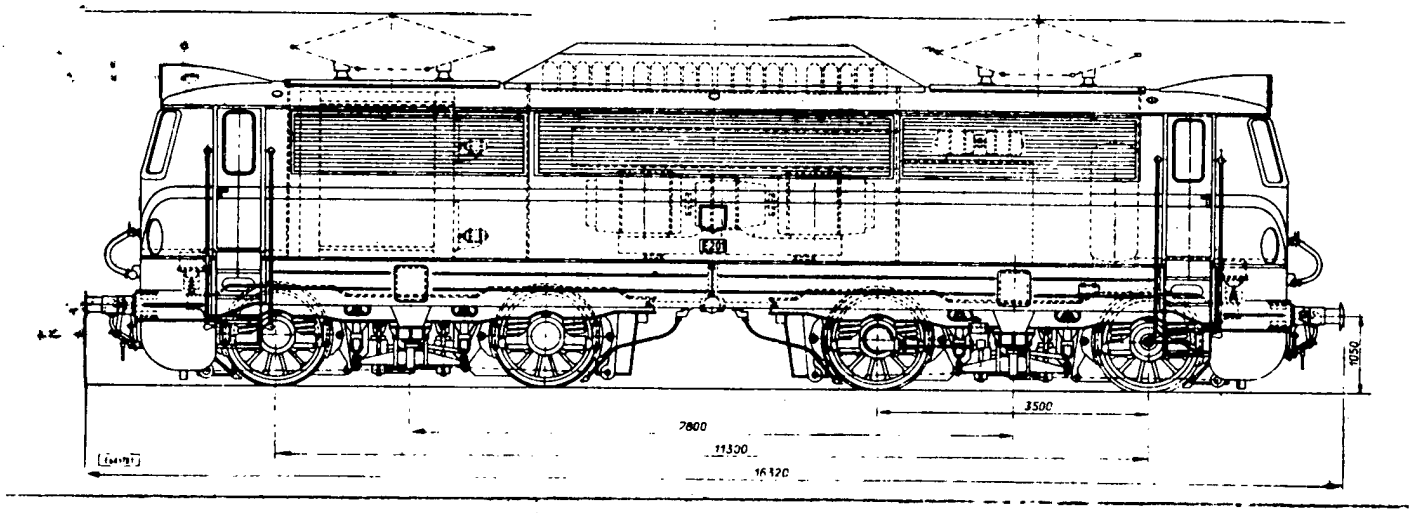
The train is built to do 110 km per hour. In both the pivot chassis four cam-bearing (Tatzenlager) motors are built in which have an hourly output of 185 KW for 3,000 volts at 900 revolutions per minute. The hourly output for the whole train is 740 KW. The motors are self-cooled by air drawn in from the roof. By order of the Polish State Railways all electrical apparatuses are built into the chassis whereby all parts carrying high tension current are in the chassis of the driving carriage. The trains have multiple-steering with switching gear. All auxiliary power units (motor compressors, ventilators, lighting transformers and steering) are supplied with 100 v. direct current which comes from a regulator current transformer (Steuerstromumformer) situated on the trolley. There is an alkaline battery loaded by a dynamo. The lighting transformer produces one-phase current of 220 v. at 500 cycles per second. Fair numbers of these trains will be delivered in 1954.

6. A new passenger carriage ABC has been developed and built in Breslau. It is 21.12 m long, outside width of 2.91 mm and 3.97 mm high. The sides including a layer of insulation are 75 mm thick. The compartments are 2.31 metres wide and 1.95 metres long. Third class seats are covered in Dermatoid. Heating is by low-pressure steam and the seats are divided into first, second and third class in proportion 2:2:4.

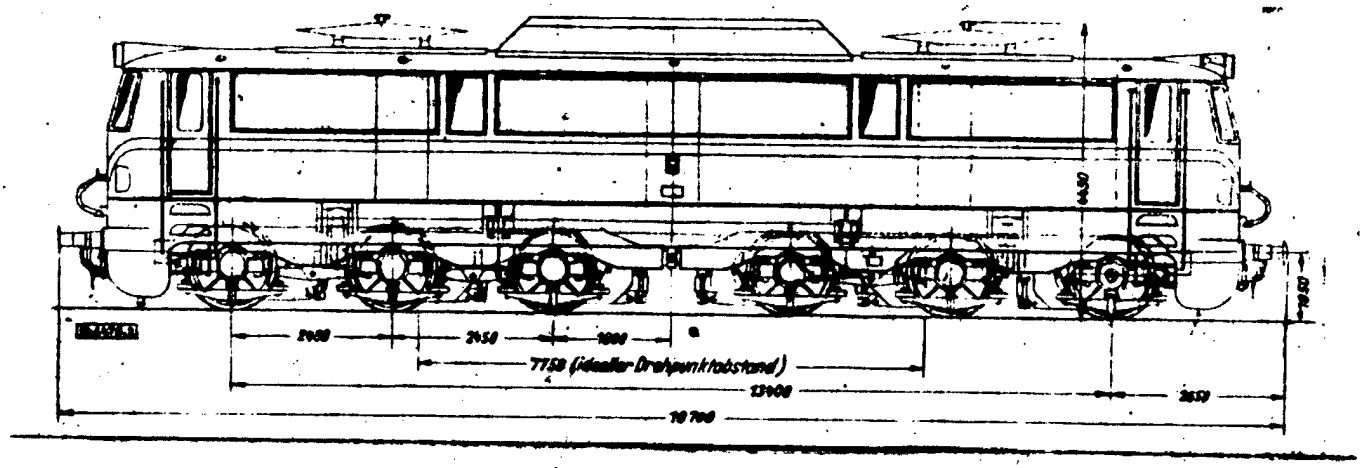
7. For goods traffic new four-axled self-unloader trucks of the types Talbot and RA-32 are being used. Type RA-32 are built entirely of welded steel and unlike the Talbot have level floors. Unloading is done by means of a special installation which inclines the floor to either left or right whereby the load is thrown 1.5 to 2 m from the rail.

50X1-HUM

Bo - Bo - Lokomotive



Co - Co - Lokomotive



Zweiachsiger Oberleitungs-Revisionstriebwagen

50X1-HUM